



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Attorney Docket No: Q79841

Mario RICCO, *et al.*

Appln. No.: 10/799,887

Group Art Unit: 2831

Confirmation No.: 8343

Examiner: Anton Harris

Filed: March 15, 2004

For: A CONNECTOR MEMBER FOR ELECTRICAL CONNECTIONS THROUGH A WALL OF A FUEL TANK, PARTICULARLY FOR THE LPG FUEL TANK OF A MOTOR VEHICLE

**REQUEST FOR RECONSIDERATION RESPONSE UNDER 37 C.F.R. § 1.111**

**MAIL STOP AMENDMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In the Office Action of February 9, 2005 Claims 1, 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller *et al.* (6,452,099) in view of Quadir (6,305,989). With respect to Claim 1 it was stated in the last Office Action that Miller *et al.* disclosed a connector member having a body at least partially made of synthetic material or of elastomer material designed to be received in a through hole (18) of a wall or a plate of the tank in which there are embedded one or more conductor pins (58, 60, 62, 64) projecting from opposite ends of the body. However, it is clear that the conductor pins of Miller *et al.* are not embedded in the body as specifically called for in Claim 1. In the last Office Action it was proposed to combine the teachings of Quadir with the teachings of Miller *et al.* on the grounds that it would be obvious to modify the device of Miller *et al.* by providing conductor pins

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embedded in the body as taught by Quadir. However, the conductor pins (70) of Quadir are clearly not embedded in the body (60) as stated by the Examiner in the last Office Action. In column 4, lines 16-31 of Quadir it is stated that the conductor pins are mounted inside the cap 60 by means of glass beads. Thus, the cap 60 does not have any synthetic material or elastomer material in which the conductor pins are embedded. If the Examiner was referring to the fact that the three electrical conductor pins (70) are adaptable to mate with the three holes (40) in the center of the connector, block (10) clearly does not amount to embedding the conductor pins in the block (10). There is no indication of the material of the block (10) in the first place.

In view of the deficiencies of the teachings of Quadir it is not seen how any combination of Quadir with Miller would meet the limitations of Claim 1. Therefore, it is submitted that Claim 1 is clearly patentable over Miller *et al.* in view of Quadir.

Claim 11 of the present application is specific to the embodiment of Figure 4 where the rubber sealing rings (35) are preloaded axially by the projection (36) when the plate (37) is mounted. This means that in an undeformed condition each ring 35 has an axial dimension greater than the axial dimension of the portion of the cavity 34 which is not occupied by projection 36. Therefore, sealing rings (35) are compelled to expand radially against the cylindrical wall of each cavity (34) thus improving sealing efficiency. This result can be obtained only by pressing the rings (35) between two separate elements (the connector body (30) and the plate (37) which are screwed together. Moreover, due to this arrangement the pressure inside the tank tends to further press the plate (37) against the body (30) thus improving compression of rings (35) and rendering the system intrinsically safe since it is the same pressure

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within the tank that ensures sealing against escape vapors or gases which are under pressure in a tank.

In Miller *et al.* the sealing ring (40) is mounted within a groove of the arrangement (14) thus rendering impossible the above described advantage of the invention.

The foregoing remarks also apply with respect to Claim 12 which protects the embodiments of Figures 5-8. In this case it is the whole body (30) made of rubber which is preloaded when plate (37) is mounted. Thus, the body (30) of the present invention has an axial dimension which in its undeformed condition is greater than the axial dimension of the cavity in which it is received. The patent to Miller *et al.* does not anticipate the provision of two separate elements such as the plate (1) and the covering plate (37) in Figures 5-8, that preload a sealing body axially when they are mounted together. In these embodiments, the freeloading effect is enhanced by the pressure within the tank which again is not possible in Miller *et al.*

With respect to the combination of Quadir with Miller *et al.* as set forth in the last Office Action it is noted that the patent to Quadir fails to disclose that the conductor pins (70) are embedded in a body of elastomeric material as pointed out above with respect to Claim 1. Claims 11 and 12 are each specific to the fact that one or more conductor pins are embedded in a body of synthetic or elastomer material. Therefore, it is not seen how the subject matter of Claims 11 and 12 would be obvious in view of the combined teachings of Miller *et al.* and Quadir. Therefore, it is respectfully submitted that Claims 11 and 12 are also allowable.

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In view of the foregoing arguments it is submitted that Claims 1, 11 and 12 are not obvious in view of the teachings of Miller *et al.* and Quadir and it is respectfully requested that these claims be allowed and the application passed to issue forthwith.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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